

REMARKS

Drawings

The Examiner suggests that Figure 3 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Applicants appreciate the Examiner's observations and have provided a corrected drawing to address the Examiner's concerns.

Specification

The Examiner appears to have objected to the specification, however no clear objection has been provided. As such Applicants have not provided any additional comment and respectfully request that the Examiner clarify the objection if there is one. The Examiner stated in the Office Action:

"Content of Specification

- (a) Title of the Invention
- (b) **Cross-References to Related Applications:** See 37 CFR 1.78 and MPEP § 201.11 (See cross-reference to related applications in the Detailed Description of the Invention on paragraph 4 on page 5 of the instant specification).
- (c) Statement Regarding Federally Sponsored Research and Development
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc
- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) **Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98:** A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art." (See the description of the related art known to applicant in the Detailed Description of the invention in the instant specification).
- (f) Brief Summary of the Invention
- (g) Brief Description of the Several Views of the Drawing(s)

- (h) Detailed Description of the Invention
- (i) Claim or Claims
- (j) Abstract of the Disclosure
- (k) Sequence Listing

Claim Disposition

Claims 1 – 137 are pending in the application. Claims 1 – 137 have been rejected. Claims 1 – 8, 11, 12, 24 – 29, 32, 33, 45, 46, 50 – 57, 60, 61, 73 – 78, 81, 82, 94, 95, 99 – 103, 115, 117, 118, 122 – 127, have been amended. Claims 23, 72, and 114 have been cancelled.

Claim Objections

Claims 23, 24, 72, 73, 114, stand objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2, 4, 51, 53, 100, respectively. The Examiner states:

“When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).”

Applicants appreciate the Examiner’s observations and have cancelled Claims 23, 72, and 114 and corrected the dependency of Claims 24, and 73 to address the Examiner’s concerns.

Claim Rejections -35 USC §112

Claims 4, 6, 8, 12, 20, 23, 25, 27, 29, 33, 41, 46, 51, 53, 55, 57, 61, 69, 72, 74, 76, 78, 82, 90, 95, 111, 114, 118, 127, 135, stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states:

“Claim 4 recites the limitation that “said associative relationship is a parent/child relationship”, however claim 3, from which claim 4 depends, recites the limitation of “an associative relationship”, and claim 1, from which claim 4 depends, recites the limitation of “an associative relationship”. Therefore, it is not clear which associative relationship is “said associative relationship”.”

“Claim 6 recites the limitation that “said associative relationship is a parent/child relationship”, however claim 5, from which claim 6 depends, recites the limitation of “an associative relationship”, and claim 1, from

which claim 5 depends, recites the limitation of “an associative relationship”. Therefore, it is not clear which associative relationship is “said associative relationship”.”

“Claim 8 recites the limitation that “said associative relationship is a parent/child relationship”, however claim 7, from which claim 8 depends, recites the limitation of “an associative relationship”, and claim 1, from which claim 7 depends, recites the limitation of “an associative relationship”. Therefore, it is not clear which associative relationship is “said associative relationship”.”

“Dependent claims 12, 23, 25, 27, 29, 33, 46, 51, 53, 55, 57, 61, 72, 74, 76, 78, 82, 95, 114, 118, 127, recite the same indefinite terminology with respect to the term “an associative relationship”, and therefore, are also indefinite. Namely, which associative relationship is “said associative relationship”

“Claims 20, 41, 69, 90, 111, 135, recite the limitations “said manufacturing instructions” in lines 1-2. There is insufficient antecedent basis for these limitation(s) in the claim(s).”

Due to the number of 35 USC § 112 rejections, the examiner has provided a number of examples of the claim deficiencies in the above rejections, however, the list of rejections may not be all inclusive. Applicant should refer to these rejections as examples of deficiencies and should make all the necessary corrections to eliminate the 35 USC § 112 problems and place the claims in proper format. Due to the vagueness and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.”

“Should applicant argue that any of the rejections provided in Office Action are logically inconsistent, because the examiner rejected claims 4, 6, 8, 12, 20, 23, 25, 27, 29, 33, 41, 46, 51, 53, 55, 57, 61, 69, 72, 74, 76, 78, 82, 90, 95, 111, 114, 118, 127, 135, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention while simultaneously, also rejecting claims 4, 6, 8, 12, 20, 23, 25, 27, 29, 33, 41, 46, 51, 53, 55, 57, 61, 69, 72, 74, 76, 78, 82, 90, 95, 111, 114, 118, 127, 135, under prior art, the examiner would respectfully disagree. In the interests of compact prosecution, indefiniteness rejections and prior art rejections may be made simultaneously.”

Applicants appreciate the Examiner’s observations and have amended the Claims accordingly to address the Examiner’s concerns.

Claim Rejections -35 USC §101

Claims 122-137 stand rejected under 35 U.S.C. §101 allegedly because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse.

The Examiner states:

“Referring to claims 122-137, the data signal is not tangibly embodied in a medium. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

Applicants appreciate the Examiner’s observations and have amended Claim 122 accordingly to address the Examiner’s concerns.

Claim Rejections 35 U.S.C. §102

Claims 1 - 137 stand rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Khurana, U.S. Patent No. 6,735,489 hereinafter referred to as Khurana. Applicants respectfully traverse. The Examiner states that:

“The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Referring to claims 1, 50, 99, and 122, Khurana clearly teaches a method, system, part, and computer program of horizontally structured CAD/CAM manufacturing (Title; Abstract), comprising: selecting a blank for machining into an actual part (Col. 6, lines 32-37); establishing a coordinate system (Col. 2, lines 26-36; Col. 9, claim 4); creating a master process model (Col. 7; Col. 8, line 52) comprising: a virtual blank corresponding to said blank (Col. 8, lines 31-41); a manufacturing feature (Fig. 5); virtual machining of said manufacturing feature into said virtual blank (Col. 8, lines 31-41), said manufacturing feature exhibiting an associative relationship with said coordinate system (Fig. 5); and generating machining instructions to create said actual part by machining said manufacturing feature into said blank (Abstract; Col. 8, lines 61-64).

Referring to claims 2-49, 51-98, 100-121, and 123-137, Khurana teaches the above, wherein said associative relationship is a parent/child relationship, further including said manufacturing feature exhibiting an associative relationship with another said manufacturing feature, wherein said virtual blank exhibits an associative relationship with another said manufacturing feature or said coordinate system, further

comprising creating extracts from said master product and process model, wherein said extracts comprise replicated models of said master product and process model at various operations of said manufacturing, teaches the above, wherein said virtual blank is positioned and oriented relative to said coordinate system, wherein said virtual blank is generated as a three dimensional parametric solid model from a reference set geometry, wherein said reference set geometry is defined by dimensional characteristics of a modeled part, wherein establishing said coordinate system comprises one or more datum planes, wherein said coordinate system comprises: creating a first datum plane positioned and oriented relative to a reference, creating a second datum plane positioned and oriented relative to said reference; and creating a third datum plane positioned and oriented relative to said reference, wherein said first datum plane, said second datum plane, and said third datum plane are orthogonal, and generating machining instructions to create said actual part by machining manufacturing features into a blank, wherein creating extracts from a master product and process model, wherein said extracts are used to generate manufacturing process sheets, wherein said product drawings include an associative relationship with said master product and process concurrent model, wherein the master product and process concurrent model links to a process planning system, wherein said process planning system comprises automated creation of a manufacturing process plan (See figures 1-6; Col. 2, lines 7-65; Col. 8, lines 11-41; Col. 8, lines 50-67; Col. 9, line 1; Col. 10, line 17). ”.

Applicants respectfully contend that the explanation in the Office Action mischaracterizes the teachings of Khurana. To anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. Lewmar Marine Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements “**arranged as in the claim.**”(emphasis added) Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the ...claim.”(emphasis added) Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

With regard to Claims 1, 50, 99, and 122 specifically, Applicants have amended these claims to further clarify that which the Applicant’s consider as their invention. The amendment renders the rejection moot and Applicants respectfully contend that Khurana

does not teach or disclose each element of the invention “arranged as in the claim”. Specifically, Khurana does not teach or disclose, “a virtual blank corresponding to said blank, **wherein said virtual blank is substantially independent of said coordinate system**”. Khurana specifically teaches and requires the virtual blank (termed therein as a base feature exhibit a direct relationship with the coordinate system, (See Columns 3 and 4, particularly Col. 4, lines 21– 23.) Conversely, the claimed invention includes no such constraint. Therefore, because Khurana does not disclose or teach an element of the invention it cannot anticipate the Applicants’ claims. Thus, Claims 1, 50, 99, and 122 are allowable, the rejections are improper, and they should be withdrawn.

In view of the above discussion, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137 depend from Claims 1, 50, 99, and 122 whether directly or indirectly, and include all of the corresponding limitations thereof. Claims 1, 50, 99, and 122 are not taught by Khurana, therefore, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137, cannot be taught by Khurana either. Thus, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137 are allowable, the rejections are improper and they should be withdrawn.

Claim Rejections - 35 USC § 103

Claims 1-137 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,629,065 to Gadh, hereinafter referred to as Gadh, in view of U.S. Patent No. 4,928,221 to Belkhiter, hereinafter referred to as Belkhiter. Claims 1-137 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gadh in view of U.S. Patent No. 6,430,455 to Rebello, hereinafter referred to as Rebello. Applicants respectfully traverse. The Examiner states:

“Referring to claims 1, 50, 99, and 122, Gadh clearly teaches a method, system, part, and computer program of horizontally structured CAD/CAM manufacturing for concurrent product and process design (Fig. 55A and 55B; Col. 36, lines 28-39; Col. 8, lines 5-24), comprising:”

“selecting a blank for machining into an actual part establishing a coordinate system (Figs. 10A-10C and corresponding description, i.e., “rubber-banding”); creating a master product and process concurrent model (Col. 10, lines 22-58) comprising: a virtual blank corresponding to said blank (Fig. 55A, element b1); a manufacturing feature (Fig. 55A, any of elements nw or nb), virtual machining of said manufacturing feature into said virtual blank (See Fig. 55A and Col. 36, lines 28-39), said manufacturing feature exhibiting an associative relationship with said coordinate system (See Fig. 25A-25D; Col. 24, lines 6-32).”

“Gadh clearly teaches a design intent graph (D) used to create a design and record the specified design constraints to be used in future design activities. Clearly, D refers to the intended/desired geometric relations between the models features (Col. 20, lines 56-65). Gadh clearly teaches exemplary embodiments of a “machined part constructed in VDSF” with its corresponding D (Col. 36, lines 28-34).”

“Clearly, the D depicted above, is horizontally structured. The virtual blank is element b1, and a manufacturing feature could clearly be any of nw or nb with exclusive relationships to b1. Gadh clearly teaches elements as add-ins, wherein, as mentioned above, the figures depict “a machined part constructed in VDSF”. Gadh clearly shows the manufacturing features on a grid coordinate system. Furthermore, Gadh clearly teaches a child element (which can clearly be interpreted, without question, as any of the nw or nb elements) has an associative relationship with the coordinate system. The VDSF display viewed by the user is considered as having a right-left/top-bottom/front-rear coordinate system, whereby the user issues intuitive commands for a user-viewpoint-dependent method of alignment of said child element. And, Gadh also clearly teaches that VDSF determines the XYZ coordinate axes when a viewpoint-dependent alignment command is issued (Col. 24, lines 6-32). Furthermore, Gadh teaches the representation can be implemented in any conventional 2D-CAD systems or VR-CAD systems utilizing VE (Col. 39, Lines 33-44). Examiner respectfully submits that “associative relationship” requires no further explanation and that it will be given its plain meaning as required by MPEP 2111.01. Webster’s Dictionary defines associative as “of or relating to, in association with” while relationship as “a state or character of being related... a natural or logical association between two or more things, connection.”

“Referring to claims 2-49, 51-98, 100-121, and 123-137, Gadh teaches the above, wherein said associative relationship is a parent/child relationship (Col. 24, lines 6-32; Col. 40, lines 14-57), further including said manufacturing feature exhibiting an associative relationship with another said manufacturing feature (Fig. 55A), wherein said virtual blank exhibits an associative relationship with another said manufacturing feature or said coordinate system (Fig. 55A), Gadh teaches the above, further comprising creating extracts from said master product and process model, wherein said extracts comprise replicated models of said master product and process model at various operations of said manufacturing (Fig. 55C; Col. 10, line 54 - Col. 11, line 7), Gadh teaches the above, wherein said virtual blank is positioned and oriented relative to said coordinate system, wherein said virtual blank is generated as a three dimensional parametric solid model from a reference set geometry, wherein said reference set geometry is defined by dimensional characteristics of a modeled part, wherein establishing said coordinate system comprises one or more datum planes, wherein said coordinate system comprises: creating a first datum plane positioned and oriented relative to a reference, creating a second datum plane positioned and oriented relative to said reference; and creating a third datum plane positioned and oriented relative to said reference, wherein said first datum plane, said second datum plane, and said third datum plane are orthogonal (Figs. 25A-D and 55A).”

“While Gadh clearly teaches creating a model and constructing a part in the VDSF, Gadh fails to provide for generating machining instructions to create the actual part by machining the manufacturing feature into the blank.”

“While the instant claims call for horizontally structured CAD/CAM manufacturing, as presented by Gadh above, the instant specification appears to describe this horizontal structure with respect to the establishment of relationships that are taught as both horizontal and vertical (See page 4-5 and 9-10 of the instant specification). Therefore, even though the examiner interprets the claims to require at least a horizontally structured relationship in the preamble, the claims do not required any of the limitations in the body of the claims to have such a horizontal structure, exclusive, or non-exclusive CAD/CAM relationship. Namely, the claims do not require a horizontally structured CAD/CAM relationship with respect to generating machining instructions to create the actual part by machining the manufacturing feature into the blank.”

“Furthermore, the recitation “horizontally structured CAD/CAM manufacturing” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa V. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Clearly, the body of the claims do not depend on the preamble for completeness, in fact, applicant has admitted that the intended use of the horizontal structure is not limited by non-verticality (See pages 4-5 of the instant specification).”

“The claims, as such, do not require any functional relationship between the limitation of an associative relationship and the limitation of generating machining instructions to create the actual part by machining the manufacturing feature into the blank. Furthermore, neither the part nor blank are required to be the product.”

“In view of the above, the examiner respectfully submits that patentability resides in the determination of non-obviousness with respect to generating machining instructions to create the actual part by machining, in real life, the manufacturing feature into the blank. The examiner respectfully submits that generating machining instructions to create the actual part by machining, in real life, a manufacturing feature, into a blank, is commonly known in the art, and therefore, the examiner is unable to make said determination of non-obviousness at this time.”

“The examiner believes these limitations are clearly taught by any of the prior art references of Belkhiter or Rebello.”

“Referring to claims 1-137, Belkhiter clearly teaches analogous art, wherein a conventional CAD/CAM system is used to produce a part drawing (Col. 2, lines 53-66 of ‘221) and then generating machining instructions to create said actual part by machining manufacturing features into a blank (See Cols. 7-8, table 2; Col. 1, lines 6-14 of ‘221), wherein creating extracts from a master product and process model, wherein said extracts are used to generate manufacturing process sheets, wherein said

product drawings include an associative relationship with said master product and process concurrent model (Col. 14, lines 6-11 of '221)."

"Referring to claims 1-137, Rebello clearly teaches analogous art, wherein figure 2 clearly shows the processing architecture of the CAD/CAM system, wherein the processor uses a data extractor and populator to populate the extracted data in drawing files and NC machining data files (Col. 3, lines 18-32 of '455), if the drawings and NC machining data are satisfactory, the designer releases them to manufacturing for production of the part (Col. 1, lines 10-18 of '455), wherein creating extracts from a master product and process model (Col. 4, line 63; Col. 5, line 6 of '455), wherein said extracts are used to generate manufacturing process sheets (Col. 7, claim 19; Col. 2, lines 39-64; Fig. 3, element 26 of '455), wherein said product drawings include an associative relationship with said master product and process concurrent model (Col. 3, lines 5-17; Col. 6, lines 13-17 of '455)."

"Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of either Belkhiter or Rebello with the teachings of Gadh."

"One of ordinary skill in the art would have been motivated to combine Belkhiter with Gadh because Belkhiter teaches a part program suitable for machining a part from a drawing without the need for human intervention. Furthermore, Belkhiter teaches a system that reduces lead-time between the request for a part and the machining of a part. Further still, Belkhiter teaches a system that reduces manpower costs (Col. 1, line 62 - Col. 2, line 2 of '221)."

"One of ordinary skill in the art would have been motivated to combine Rebello with Gadh because Rebello teaches a system and method for managing files of a product in a design and manufacturing environment wherein costly mistakes are avoided and time to bring the product to market is reduced. Other advantages include discovery of inconsistencies, the ability to incorporate agility and concurrent engineering into design processes and divide roles across and between organizational structures quickly and efficiently (Col. 5, lines 37-46 of '455)."

Applicants respectfully contend that explanation in the Office Action mischaracterizes the teachings of Gadh and/or Belkhiter and Rebello and that the cited references do not teach or disclose each element of the invention. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness. In re Fine, U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success,

determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

With regard to Claims 1, 50, 99, and 122 specifically, Applicants have amended these claims to further clarify that which the Applicant's consider as their invention. The amendment renders the rejection moot and Applicants respectfully contend that neither Gadh, Belkhiter, nor Rebello teach or disclose each element of the invention, whether alone or in combination. Specifically, as stated above for Claim 1, neither Gadh, Belkhiter, nor Rebello teach or disclose, "a virtual blank corresponding to said blank, wherein **said virtual blank is substantially independent of said coordinate system**". There is no specific teaching in Gadh to indicate that the block b_1 (treated by the examiner as Applicants' virtual blank) is substantially independent of the coordinate system. Moreover it is not possible to suggest that such a feature is inherent as it is not necessarily present in the teachings of Gadh. That is, it is not *necessarily* present in the teachings of Gadh that block b_1 is independent of the coordinate system therein. Therefore, because neither Gadh, Belkhiter, nor Rebello disclose or teach an element of the invention they cannot render Applicant's claims unpatentable.

Furthermore, neither Gadh, Belkhiter, nor Rebello teach or disclose, "**said manufacturing feature exhibiting a first associative relationship with said coordinate system**". To support the rejection the Examiner relies, on the disclosure of Gadh at Column 24, lines 6 – 32 and Figures 25A – 25D. However, it is evident from the disclosure of Gadh at the cited reference that the Examiner has mischaracterized the teachings of Gadh. There is no teaching whatsoever at the cited reference regarding the blocks e.g., b_2 and subsequent exhibiting an associative relationship with a coordinate system. In fact, Gadh teaches quite the contrary, Gadh specifically teaches a modeling approach that is essentially the "vertical" modeling of the existing art. Gadh at the cited reference specifically teaches the addition of subsequent blocks each being positioned and placed relative to b_1 , b_2 and subs. This is specifically the approach that the Applicants clearly teach to avoid as much as possible. Applicants further direct the Examiner's attention to note that Gadh clearly teaches that the associative relationships are between the blocks, and not with a coordinate system, to establish the positioning and placement in

various directions. For example, Gadh at Col. 24, lines 9 – states: “FIG. 25A illustrates alignment of b_2 , a child of b_1 , **in a +X axis** (emphasis added) fixed on b_1Similarly, Fig. 25B illustrates alignment of b_3 **in the +X axis** (emphasis added) with its parent b_2 . Furthermore, Gadh specifically teaches that the VSDF “uses a **coordinate-system independent** (emphasis added),method of alignment” Clearly this teaches directly away from Applicants invention and claims. Therefore, because neither Gadh, Belkhiter, nor Rebello disclose or teach each element of the invention they cannot render Applicant’s claims unpatentable. Thus, Claims 1, 50, 99, and 122 are allowable, the rejections are improper, and they should be withdrawn.

In view of the above discussion, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137 depend from Claims 1, 50, 99, and 122 whether directly or indirectly, and include all of the corresponding limitations thereof. Claims 1, 50, 99, and 122 are not taught by Gadh, Belkhiter, or Rebello, therefore, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137, cannot be taught by Gadh, Belkhiter, or Rebello either. Thus, Claims 2 – 49, 51 – 98, 100 – 121, and 123 - 137 are allowable, the rejections are improper and they should be withdrawn.

Double Patenting

Claims 1-137 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-78 of U.S. Patent No. 6,775,581 to Landers. Claims 1-137 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,754,556 to Landers. Claims 1-137 stand as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-88 of copending Application No. 10/032959 to Landers (this is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented). Applicants respectfully disagree. The Examiner states:

“Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim(s) 1-137 are generally broader than claims 1-78 of U.S. Patent No. 6,775,581 to Landers. Claim(s) 1-137 are generally broader than claims 1-42 of U.S. Patent No. 6,754,556 to Landers. Claim(s) 1-137 are generally broader than claims 1-88 of copending Application No. 10/032959 to Landers. Broader claims in a later application constitute obvious double patenting of narrow claims in an

issued patent. See *In re Van Ornum and Stang*, 214, USPQ 761, 766, and 767 (CCPA) (The court sustained an obvious double patenting rejection of generic claims in a continuation application over narrower species claims in an issued patent); *In re Vogel*, 164 USPQ 619, 622, and 623 (CCPA 1970) (Generic application claims specifying “meat” is obvious double patenting of narrow patent claims specifying “pork”).”

Applicants respectfully submit that the claims, especially as amended herein are patentable distinct from those of commonly assigned U.S. Patent No. 6,775,581, U.S. Patent No. 6,754,556, and copending Application No. 10/032959 to Landers. However, to further prosecution, Applicants respectfully submit that a terminal disclaimer can be filed upon resolution of prosecution if necessary to address the Examiner’s concerns.

The arguments and amendments presented herein are made for the purposes of better defining the invention, rather than to overcome the rejections for patentability. The claims have not been amended to overcome the prior art and therefore, no presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which the Applicants are entitled has been surrendered. Allowance of the claims is respectfully requested in view of the above remarks. Moreover, no amendments as presented alter the scope of the claimed invention and therefore cannot necessitate a new grounds rejection.

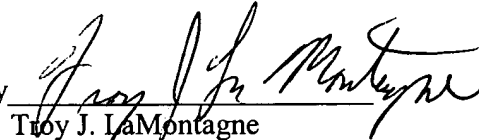
It is believed that the foregoing remarks are fully responsive to the Office Action and that the claims herein should be allowable to the Applicants. In the event the Examiner has any queries regarding the instantly submitted response, the undersigned respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention.

If there are additional charges with respect to this matter or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully Submitted,

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